

CLAIMS LISTING

1. A method for reducing biological oxygen demand in an aqueous waste stream from a source selected from the group consisting of food processing, municipal waste treatment, fermentation and chemical plants, wherein said waste stream contains from about 0.02% to about 3.0% magnesium chloride (weight percent) or an equivalent molar amount of divalent magnesium cation, said method comprising the step of aerating the waste stream for a time ~~up to~~, of about one to about seven days.
2. Cancel.
3. The method of claim 1 ~~or~~ 2, wherein flocculated material is removed prior to the step of aeration.
4. The method of ~~any of claims 1 to 3~~, wherein the waste stream contains from about 0.02% to about 0.5% MgCl_2 (weight/volume) or an equivalent amount of divalent magnesium cation.
5. The method of ~~any of claims 1 to 4~~, wherein the step of aerating maintains a dissolved oxygen level from about 1 to about 8 ppm oxygen.
6. The method of claim ~~any of claims 1 to 5~~, wherein the waste stream is from an animal meat processing facility, from a plant food processing facility, from a fermentation facility or from an organic chemical facility.
7. The method of claim 6, wherein the waste stream is from an animal meat processing facility and wherein a magnesium chloride-dissolved air flotation process has been employed to remove flocculated material, prior to the step of aerating, from the waste stream.

8. The method of ~~any of~~ claims 1 ~~to~~ 7, wherein the step of aerating results in foam formation and wherein the method further comprises the step of foam removal from the waste water.
9. The method of ~~any of~~ claims 1 ~~to~~ 8, wherein the step of aerating is carried out using a Venturi system.
10. (New) The method of claim 1 wherein, sodium hypochlorite or hydrogen peroxide are not added to said waste stream.